



PERENNIALS

Carex laxiculmis 'Bunny Blue'
(Creeping sedge 'Bunny Blue')



Phlox divaricata 'Blue Moon'
(Sweet william 'Blue Moon')



Carex divulsa
(Grey sedge)



Tiarella cordifolia
(Foam flower)



Liriope muscari 'Ingwersen'
(Big blue lilyturf 'Ingwersen')



Hakonechloa macra
(Japanese Forest Grass)



Euphorbia amygdaloides var. *robbiae*
(Mrs Robb's bonnet)



Penstemon digitalis 'Husker Red'
(Penstemon 'Husker Red')



Carex pendula
(Pendulous sedge)



Pachysandra terminalis
(Japanese spurge)



Polystichum polyblepharum
(Japanese lace fern)



Campanula trachelium
(Nettle-leaved bellflower)



Dryopteris affinis
(Golden shield fern)



Helleborus foetidus
(Stinking hellebore)



SHRUBS

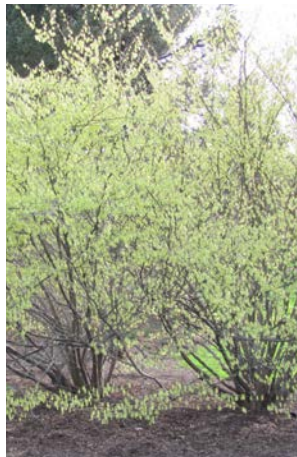
Sarcococca hookeriana 'Winter Gem'
(Sweet box (Winter Gem))



Hydrangea quercifolia 'Sikes Dwarf'
(Oak-leaved hydrangea 'Sike's Dwarf')



Corylopsis glabrescens
(Fragrant winter hazel)



Sarcococca confusa
(Sweet box)



Cornus mas
(Cornelian cherry)



Viburnum opulus
(Guelder rose)



Hamamelis x intermedia 'Arnold Promise'
(Witch hazel 'Arnold Promise')



5.33 Tree planting strategy





Tree planting across the site relates closely to the character areas described above. Tree species will be selected from the recommended palette to suit the purpose and situation within each location and to achieve the desired effect.

Street trees will comply with Local Authority recommendations. Central courtyard tree layout is based on a grid of feature trees framing the space and supported by a secondary range of planting to the edges, containing the visual extent of this area.

Screen planting trees have been used to augment retained existing trees and hedge vegetation along the rail corridors and to create a visual buffer to the edges of the development.

Courtyards contain a range of colourful deciduous trees to add feature and colour to the landscape and to shade and frame use areas.

KEY

	Streetscape trees (Semi-mature trees - 5-7m height)
	Feature trees in Public square (Semi-mature trees - 5-7m height)
	Mix of medium size Single-stem and Multi-stem trees (3-5m height)
	Existing trees to be retained



Tree strategy plan



Amelanchier lamarckii



Acer ginnala



Malus everest



Prunus serrula



Betula nigra 'heritage'



Gleditsia triacanthos



Acer freemanii



Acer campestre 'Elsrijk'

5.34 Living roof strategy

The architectural forms of the buildings across the site are based on perimeter block forms around a central courtyard, offering a number of elevated spaces for residential amenity for private and communal use. The link buildings provide a landscaped terrace space for relaxation, active and passive recreation at fourth floor level, retaining a visual and physical connection to the ground level and adjacent landscape.

A number of taller buildings step back as they rise, creating additional private terraces at upper levels, typically facing south. The majority of these are private terraces for the contiguous units, while the larger space on Building B provides communal amenity for the residents of the development. Roof terraces are combined with building plant and equipment and sustainable energy devices (photovoltaic cells), as well as areas for living roofs.

The living roofs across the site contain wildflower mixes, which provide a large biomass with a range of plant species, offering biodiversity in flowers, habitat and food sources for a variety of local fauna.

KEY

<div></div>	Living roof
<div></div>	Flats/Townhouses Private Terraces
<div></div>	Communal Residential Amenity
<div></div>	PhotoVoltaic cells with brown roofs
<div></div>	Core/Plant area



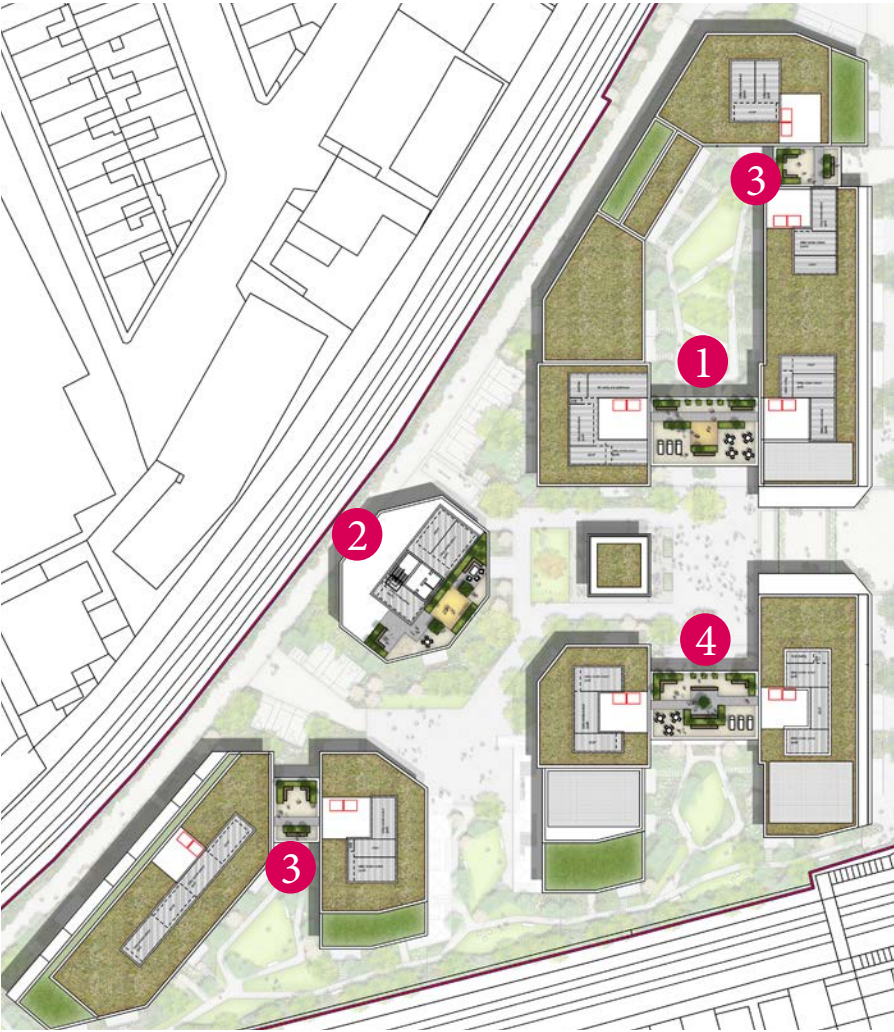
Living roofs and amenity terraces

5.35 Communal roof terraces

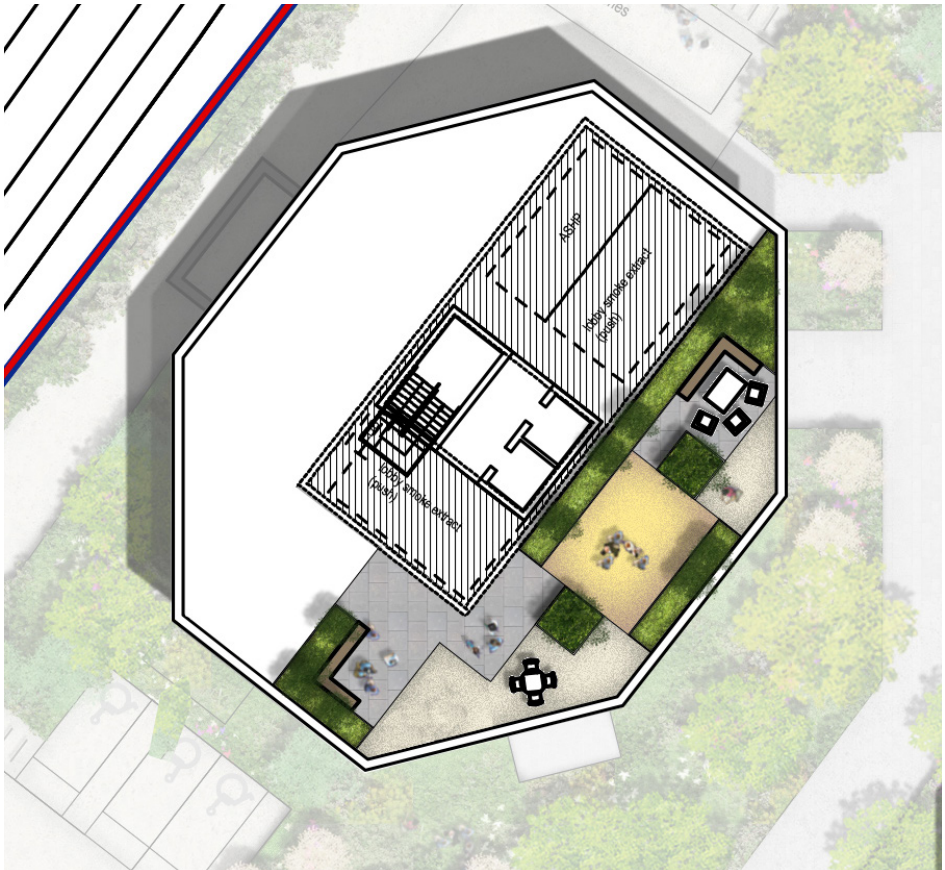
The roof terraces offer a private outdoor amenity space for residents, providing a unique and tranquil place on the top of the buildings. The design of each, feature a series of enclosed spaces defined for different uses. The simplicity of shapes is delineated by the disposition of raised planters which will provide protection from the wind while adding seasonal interest.

A combination of dining areas, with flexible spaces that could be either dedicated for yoga classes or other types of sports, or either as a stage for small theatre shows for children, is proposed. Calm spaces are provided with chaise longues to contemplate the view, or enclosed spaces with seating elements.

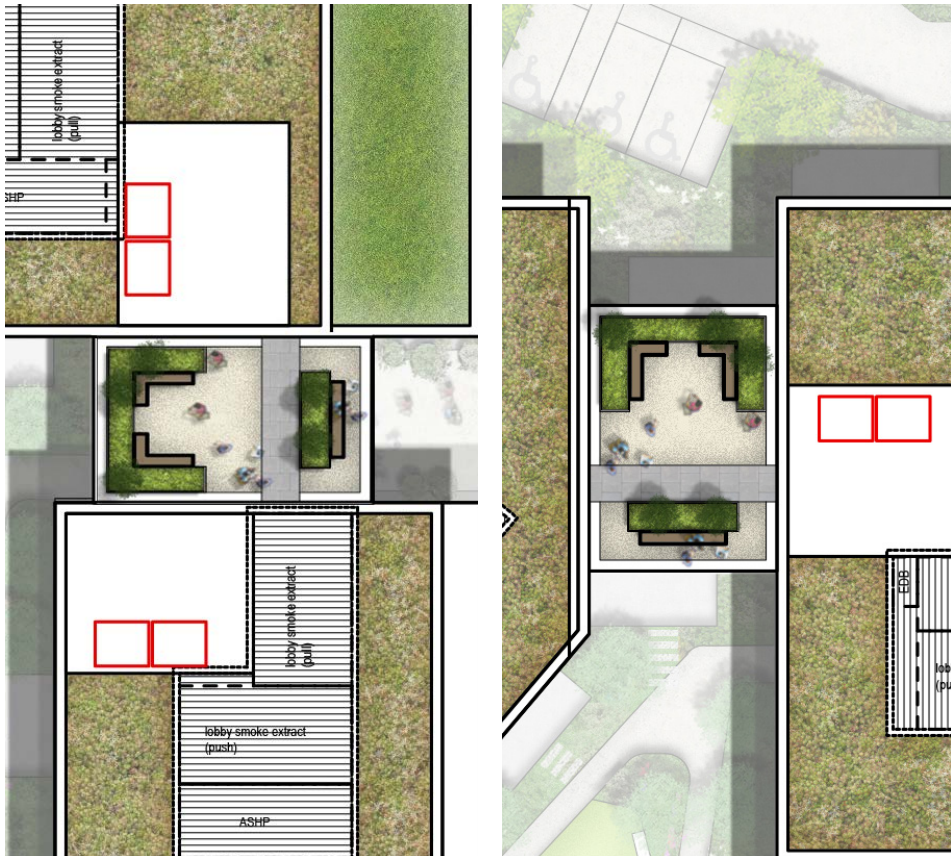
The material palette is simple, with the use of timber decking, concrete textured paving on pedestals, and timber in all the furniture.



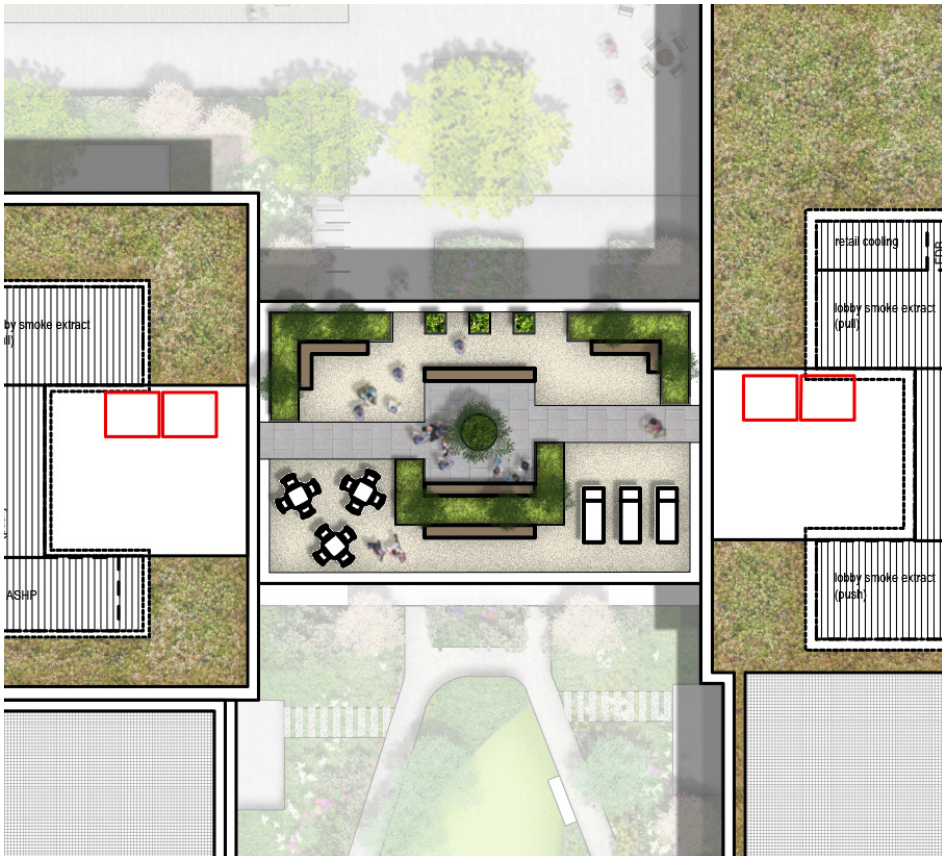
1 Block A communal roof terrace



2 Block B communal roof terrace



3 Block A and C communal roof terrace

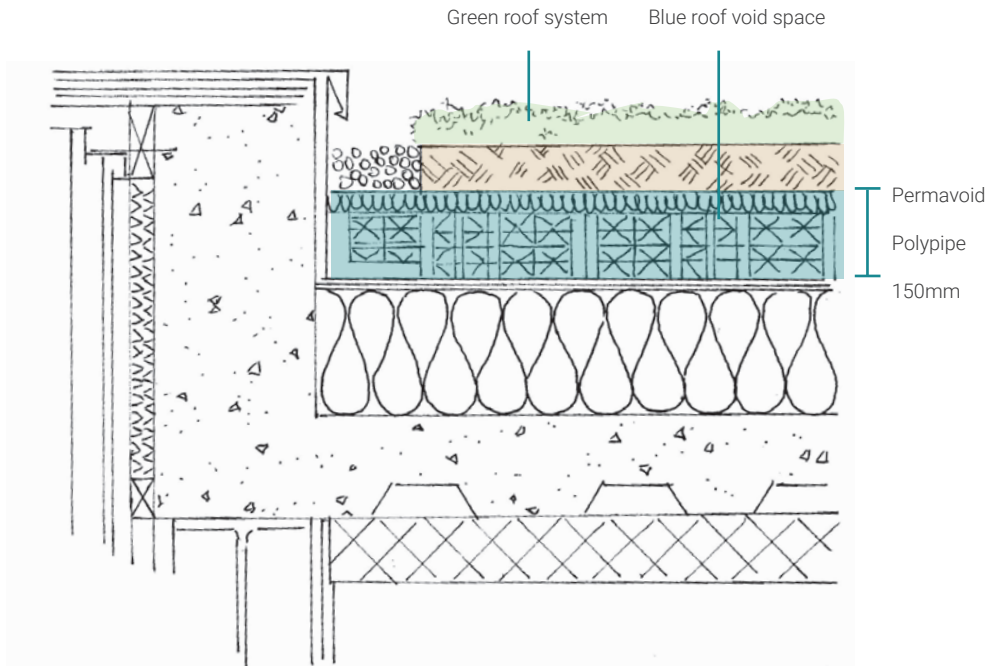


4 Block D communal roof terrace

5.36 Rain water attenuation

The drainage strategy for the site is predicated on the lack of a connection to Mains Sewer and the need to capture and infiltrate all storm water on site. (Refer Building Services section of this report)

All building roofs contain a blue roof storage capacity and two Attenuation tanks are provided in locations as shown to hold and infiltrate captured storm water. The blue roof storage extends under all other roof finishes - Living roofs, plant areas or communal terrace pavements and planting. Refer to Engineer's Preliminary Drainage Strategy Drawing.



Blue roof detail

KEY

	Blue Roofs
	Attenuation tank



Blue roofs and attenuation tank

5.37 Existing local play provision

KEY

	Site Boundary
	Allotments
	Recreational Green Spaces
	Park/Gardens
	Multi-Sports Pitches
	Golf Courses
	Rugby Pitches
	Cricket Pitches
	Archery Pitches
	Tennis Pitches
	Pool
	Cemetery
	Woodland
	Actual Walking Distance
	Playgrounds



5.38 Play strategy

KEY

<div></div>	0-5 Play (Doorstep)	854 m2
<div></div>	5-11 Play (Local)	555 m2
<div></div>	12+ Play	0 m2

Play space benchmarks used :
0-5yrs Play (Doorstep) - 10 sqm per child
5-11yrs Local Play - 10 sqm per child

Assessing child occupancy and play space requirements

Size of your development:

Number of FLATS

	Studio	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	46	50	40	0	0	136
Intermediate	0	0	0	0	0	0	0
Market	0	89	110	62	0	0	261
Total	0	135	160	102	0	0	397

Number of HOUSES

	1 bed	2 bed	3 bed	4 bed	5 bed	Total
Social rented/affordable	0	0	0	0	0	0
Intermediate	0	0	0	0	0	0
Market	0	0	3	0	0	3
Total	0	0	3	0	0	3

Proportion of children

	Number of children	%
Under 5	85	49%
5 to 11	55	32%
12+	32	19%
Total	173	100%

Play space requirements

GLA benchmark (sqm)*	Alternative local benchmark (sqm)**	Total (sqm play space) required
10		853.9
10		554.4
0		0.0

* GLA benchmark standard=minimum of 10sqm of dedicated play space per child

** 5sqm - Borough's local benchmark



Play spaces - doorstep and local play

5.39 Play strategy - required areas

Open Space and Play

The site lies in close proximity to a number of open spaces and recreational facilities in the immediate area. Extensive open space and recreational grounds south of the canal can be readily accessed from the site and offer a variety of sporting facilities for the older children (12yrs +) from the site.

The preceding diagram indicates locations and travel distances from the site to each of these open spaces and details the facilities available at each location.

Site Play Provision:

Allocation has been made within each courtyard, including the public central space, for provision of play facilities and a playable landscape treatment incorporating a range of furniture and play elements for children aged from 0-11yrs. The designated areas (as recommended by SPG ‘Shaping Neighbourhoods: Play and Informal Recreation’) have been distributed across the site to suit current unit numbers and mix. (Refer diagram)

Doorstep Play:

- Required within 80M of all units front doors
- Age group (0-5 yrs)
- Climbable / balancing elements
- Playable landscapes
- Informal play in public spaces

This age group is fully catered for, at required 10 Sqm / child (854 Sqm) with on-site areas distributed through the courtyards as indicated.

Local Playable Space:

- Required within 400m of unit / site
- Age group (0-11 yrs)
- Recommended space based on child numbers (10 Sqm / child) – 555 Sqm

The design includes recommended space for this age group within the site (555 Sqm), distributed in private courtyards and common spaces, including the central public courtyard. In addition to this, some public playgrounds exist within proximity of the site as indicated on plan - at Raleigh Road (500m walk) and North Sheen Recreation Ground (550m walk) – just outside the recommended travel distances for this type of facility.

Neighbourhood Play:

- Required within 800m walk of the site
- Age Group (12 yrs +)
- Adventure playgrounds, Sport and recreation space – ball courts, pitches, MUGA fitness trails etc
- Provision recommended based on unit mix and numbers – 320 Sqm

No Neighbourhood Play Space is provided on site due to restrictions in available site area and the intent to cater for a more organised sports form of recreation for this age group, as well as casual gathering spaces and informal play activities.

Wider Context open space:

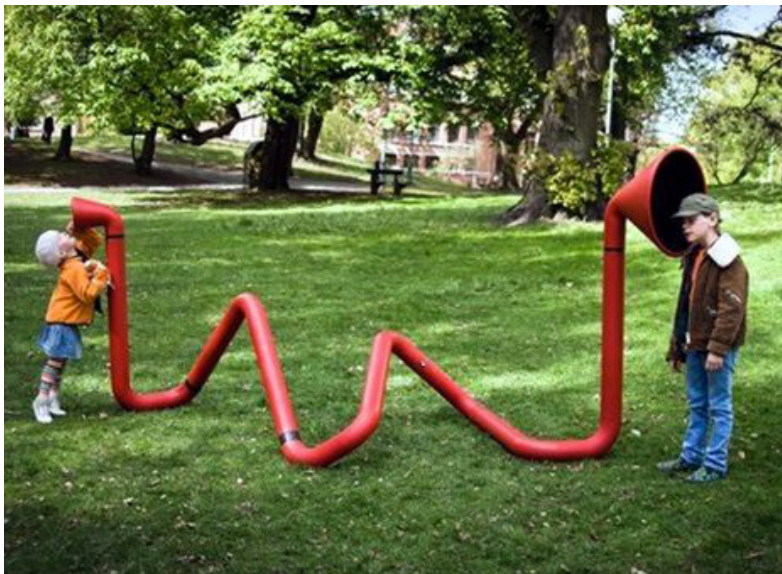
Consideration has been made of the existing available play and recreational facilities for older children (12 yrs +) in the local area and the Context Plan indicates existing facilities within the recommended travel distances for the site and the current recreational and play facilities included at each location. These facilities predominantly cater for older children (10yrs +) with organised sports and recreation (cricket, rugby, archery, golf, swimming classes etc).

It is considered that a wide range of facilities exist in the locality and these are generally accessible from the site via local streets, with proposed improvements to the existing cycle path network assisting in providing safer and easier access. Given the constrained nature of the site layout and the creation of a series of private courtyards wrapped by built form, the strategy for play is based on the following provisos and the current unit mix and numbers:

Existing facilities within the catchment of the site:

- Richmond Cricket/Archery/Tennis Clubs
- Richmond Green
- Little Green
- Old Deer Park Pool
- Richmond Athletic Association
- Richmond Rugby
- Royal Mid Surrey Golf Club
- Royal Botanic Gardens Kew
- Richmond Park

5.40 Play strategy - reference images





Introduction

Context

Design process

Design response

Landscape

6.0 Access

Appendices

6.1 Access principles

Inclusive design is about breaking down barriers and exclusion through creating places that everyone can use. It enables everyone to participate equally, confidently and independently in everyday activities. The term 'inclusive design' relates as much to the design process as to the final product and just as equally to management, operation and information, bonding user experience with professional expertise.

This section outlines the Access strategy for the proposed development on Manor Road, Richmond. It supports the drawings prepared for this planning scheme. The aim is to provide a clear description of how the users of the proposed development will access, and be guided through the building and the site, without discrimination or limitation. This Access section deals with the design, up to planning, and the aspirations of the design for its development and final realisation through the construction process.

39 (10%) of the residential apartments identified as wheelchair Part M4(3) units. Wheelchair apartment have been chosen at various floor levels throughout the development, accessible via two lifts, and provide a balanced mix of unit sizes and tenure. These apartments are designed specifically for ease of use for visually impaired, ambulant disabled and wheelchair bound residents.

6.2 Legislation, standards and guidance

Policies, legislation and guidance followed in the preparation of the Access Statement include:

- London Legacy Development Corporation planning policies on inclusive design and access and relevant housing policies
- Building Regulations: Approved Documents M 2015 and K 2013 (hereafter referred to as AD M and AD K)
- Technical Housing Standards- Nationally Described Space Standard March 2015
- Mayor of London Plan 2016
- BS 8300: 2009 + A1:2010
- Building Regulation Part B/BS 9999:2017
- The Human Rights Act 1998
- Equality Act 2010



6.3 Masterplan access principles



6.4 Access philosophy

6.4.1 Introduction

The development is easily accessible by foot, cycle, public transport and car.

Pedestrian approach:

The site is located on Manor Road, Richmond upon Thames.

Principle residential entrances, located at the bases of buildings A, B, C and D provide access to the development from the new public realm.

From here all building cores can be accessed. Entrances to the townhouses and duplex units are via the western access road or from the public realm.

The proposals include residents’ cycle and refuse stores, located adjacent to cores.

Public transport:

The closest train station to the site is North Sheen, which is located 150m to the south-east of the site where destinations such as Richmond, Chiswick, Wimbledon and London Waterloo can be reached directly.

The nearest bus stop to located on Manor Road (circa. 1 minute walk) which provides frequent services to Richmond town centre, Kingston, Twickenham, Barnes, Chiswick and Kew.

The site has a PTAL rating of 5.

Vehicular and cycle access:

The site will have surface parking along the access road, to the western site boundary. 12 wheelchair accessible parking spaces, alongside 2 car-club spaces, have been provided across the development with space allocated for an additional 19 spaces if required. These spaces have a 1200mm clear access zone to at least one side of the parking space. The parking spaces are level with a suitable ground surface.

A loading bay is provided adjacent to the concierge at the base of Building B. Servicing for the commercial units will happen from within the site boundary to alleviate pressure on the already congested Manor Road. Deliveries to the commercial units will need to be wheeled across the public square from the loading bay.

Vehicular access to this will be provided from Manor Road using the existing site entrance.

Secure internal cycle parking will be provided adjacent to entrance lobbies in blocks C and D and within a basement cycle store below block A. A small amount external cycle parking will also be provided within the public realm for visitors and for the commercial units.

Public Realm:

The public realm will be accessible to all as part of an inclusive design philosophy. Users with disabilities are not segregated and are able to move through the public realm and the buildings. They will use the same entrance, corridors and rooms as everyone else without detour.

Residential Access:

Where possible ground floor flats will have front door access from the street and new public realm to maximise activity at ground floor and to help animate the street. Every ground floor unit has dedicated defensible space to aid privacy and provide a buffer. To increase privacy to ground floor units most are raised off the ground and accessed via a couple of steps. In these instances level access is provided to the communal corridor via the back of the flat.

The entrances to all buildings and apartments have been designed and located in such a manner as to make them obvious and easily accessible from the public realm. This is the same for disabled access. All shared residential lobbies and entrances are large spaces with secure post boxes and are located in prominent positions on plan.

All entrances are designed to provide level access from the public realm, as required by Part M, with a clear open space in front of the doors. This accessible approach leads to a level entry threshold and to the internal lobby. A slip resistant material for this walkway will be provided. The routes to the entrance, from the public footpath, will be well lit.

A similar approach is applied to the entrances of all no residential uses. Access to the elevated terrace spaces is via apartment cores. Access to the play spaces and communal gardens is via well designed and overlooked paths to help forge a legible and secure environment for residents.

Concierge:

A 24hr concierge will be present in the base of Building B within the main entrance lobby. The position on site allows surveillance of the surrounding buildings and new public square.

Post will be delivered to individual post boxes located on the ground floor of each core entrance. Larger packages will be delivered to the concierge and stored accordingly.

External landscaping:

A series of amenity spaces are provided throughout the scheme, some with public access, some semi-private and some for residents only. The terraces of the link blocks at the upper levels will be landscaped as amenity space for residents to enjoy, offering more privacy and security than at ground level.

The hard and soft landscape design is based on a strategy to ensure ease of long-term maintenance and management. Practical considerations will include the use of durable, non-slip hard landscape materials, benefitting not only disabled, but older people and children too.

The provision of direct routes between well-used locations, regular placement of seating and resting points along paths, the use of quality tactile and textured surfaces, contrasting colours, appropriate lighting and signage will be utilised to aid navigation around the site. Visual clutter and obstructions will be minimised, where possible.

See Landscape and public realm section of this document for all details regarding hard and soft landscaping materials and design.

Surface materials:

The entire public realm will be accessible, with the pavement textures selected in order to balance the needs of wheelchair users (who require a low resistant surface) with the needs of crutch and stick users (who require more purchase during wet weather).

The key principles for the palette of considered surface materials will include the following:

- A visual contrast in colour between the pedestrian and vehicular access
- Tactile paving defining pedestrian and vehicular areas
- Surfacing designed to aid way-finding

Surface textures:

Manual wheelchairs require smoother surfaces to move across. The more tactile the surface, the harder it is for the user. Counter to this is the need for ambulant disabled people to gain some purchase for their sticks or crutches.

Where footpaths and road surfaces are flush, careful consideration of the transition between the two needs to take place. Flush transitions cause guide dogs difficulty in sensing the change in condition.

One proposal is a change in pavement colour mix, used to give the appearance of a level surface whilst defining the public and private realm.

Width/gradient to footways:

Pedestrian routes will follow desire lines as much as possible; footpaths will be of a suitable width as to allow users at all mobility levels to pass comfortably, including wheelchair uses and adults with children. Street furniture such as directional signs, lighting and seating will be located just off the perimeter of the access routes to minimise obstructions. All signage will be colour contrasted.

Where required, ramps have been used in favour of steps when changes in level are required, avoiding segregation of users with disabilities and allowing access for wheeled vehicles. All external ramps within the public realm are of a gradient no steeper than 1:20.

Landings will be provided along all long lengths of steps or ramps to allow resting points. Hand rails are provided to all ramps and steps where required to provide support and guidance. They will be colour-contrasted to make them easily visible, easy and comfortable to grip and they will have no sharp or protruding edges and will be located at the correct height (900mm) and will extend for 300mm.

Cross falls to footpaths:

Cross falls are important on footpaths to move standing water to the edges, stopping ice from forming on cold days. The need for this surface drainage must be balanced with the difficulty a manual operated wheelchair has moving across a cross fall. The design of the footpaths around the site have minimal cross fall to balance both needs.

External street lighting & CCTV:

A balanced level of lighting has been considered. This will be designed to avoid strong contrasting pools of light and silhouette. The lighting design supplied will be of a safe and comfortable illumination level, assisting access and improving security.

Routes across the site will be lit in accordance with BS 5489 and CIBSE Standards, subject to planning. The spread of light will be even and the lamp type chosen will provide a light with good colour rendering properties. Timing controls will be introduced to allow the switching off of certain parts of the lighting at key times to save energy and discourage use at night close to residential areas. Key entrances to the buildings, will remain illuminated.

All open spaces such as the podium and other accessible areas within the development will be illuminated at both high and low levels at the appropriate lux figure for their contextual setting.

Please refer to the Lighting design masterplan and report, which has been prepared by Hoare Lea.

Plant and Utilities:

The majority of the plant will be located on the roof tops, and will be accessible via a roof hatch. High parapets or balustrades will provide protection during maintenance of this plant. Plant replacement will be via the roof hatch and cores.

Additional plant rooms are located on the ground floor and within a basement, the majority of these are accessed along the service road along the western site boundary. Lifts from the basement are also located along this access road.

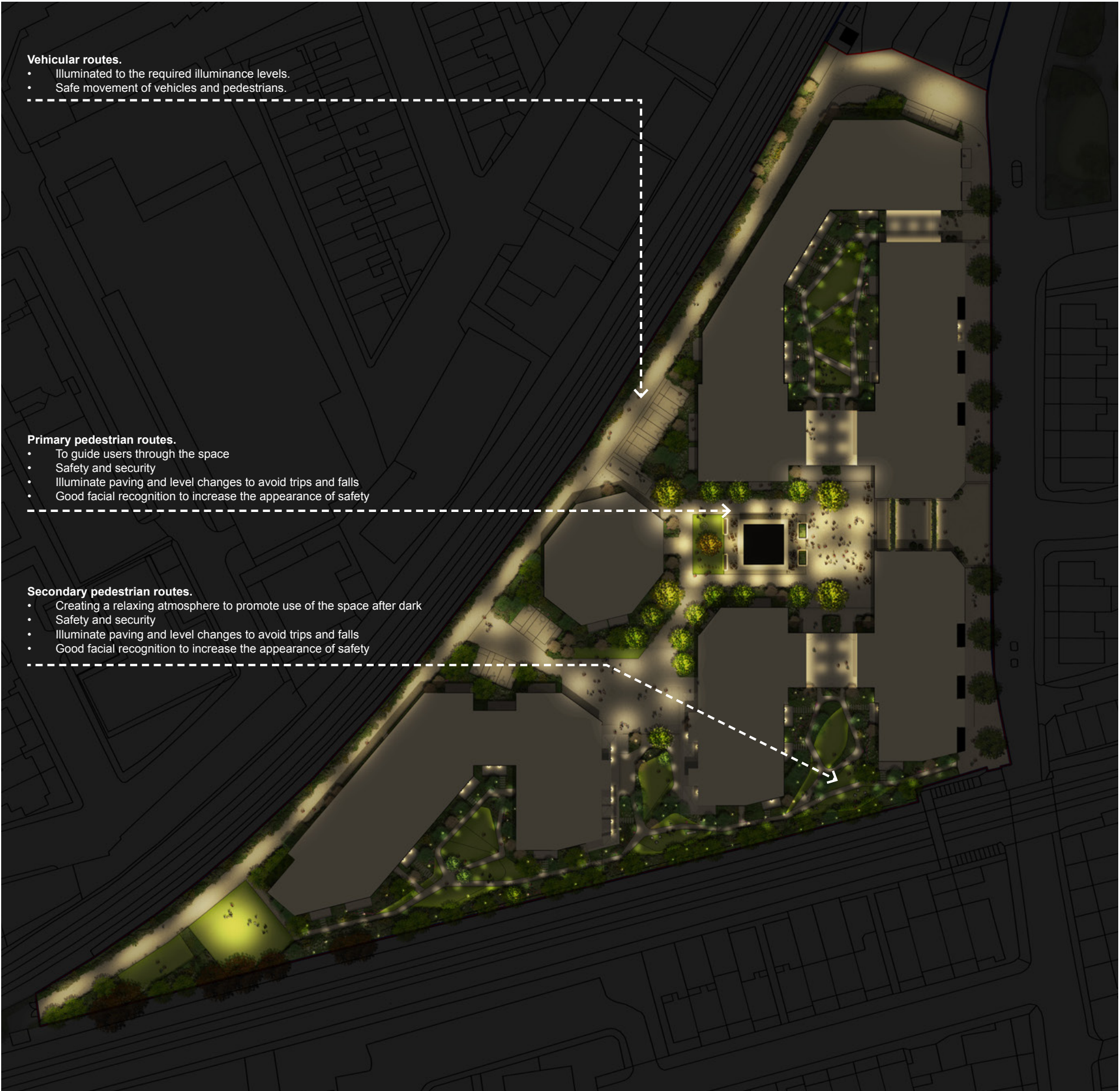
Refuse:

Bin stores for each block are located adjacent to cores and within 30m of flats as per Approved Document H. For private apartments there will be a managed refuse solution on site and refuse will be moved and stored within a central refuse store in the basement below block A. A refuse holding area is located along the access road near the vehicular entrance to the site.

Access for refuse vehicles is via the access road to the western site boundary. Refuse stores and holding areas are located not more than 15m from the collection points.

Appropriate space has been allocated for waste and recycling within properties.

Please refer to the Waste management strategy, which has been prepared by Momentum.



External lighting strategy for main part of site. Image from Hoare Lea's external lighting report.

6.5 Building environment

The buildings are set within a hard landscaped environment at street level. There are level changes across the site where ground floor units have been raised 900mm above ground. This will be accommodated at street level by steps up to front doors of ground floor units and the use of ramps of very shallow gradients integrated into the landscape design. A level threshold is provided to all commercial units.

Level access is provided to all residential apartments and each building has its own private entrance with level access from the street. Roof level external amenity space is provided, which is only accessible by residents.

6.6 Building and structures

Materials

The proposed materials have been specified (using Part M specifications) to contrast tonally with the ground finishes, enabling people with visual impairments to identify building boundaries.

Construction

The design follows a simple concept based on the clarity of the overall structure of the building. Slab levels have been set to ensure that the structure will not impose restraints upon individuals using and moving through the building, including ensuring obstructions are avoided in pedestrian/common areas and that level access can be provided throughout.

Internal floor surfaces

The floor finishes will contrast tonally with the walls and will be of a non-slip. Finishes will be contrasting in the vertical and horizontal situations. Floor surfaces will not be overly resistant to wheelchair users, but will aid crutch users in gaining purchase. As well as this, floor finishes will be of a robust and durable nature.

Entrances

Each building provides a correct transition from outer spaces to inner spaces to all users. The approach to the buildings will be well lit and obvious.

Transition to internal

The entrances will have manifestation to identify them, and the frames will be of a strong tone or colour to visually separate them from the surroundings. Entrances will be appropriately lit. The main entrance doors are designed to comply with relevant legislation in terms of minimum width opening and closing and the thresholds will be level.

Opening windows and projections on public routes

Obstructions at head height can be dangerous to the visually impaired. All opening windows and projections have been minimised within the design. Where they can't be removed completely, vegetation has been provided at ground floor to notify people of the potential for window opening. Where possible, outward swinging doors are avoided and, where required due to fire escapes, they will be marked by blistering, vegetation or bollards.

Steps and ramps

All steps, stairs and ramps have been designed to comply with Approved Document Part M 2015 and BS 8300:2009. This includes tread, risers, handrails, lighting and nosings.

Door design

All doors of the scheme, both manually operated or automated, are compliant with Approved Document Part M 2015 and BS 8300:2009 according to different uses and users of the buildings, specifically in relation to vision panels, weight, colour, door ironmongery and use of materials.

To meet the requirements of Approved Document Part M, door closer tensions will be set to a maximum of 20N. The clear opening widths of all doors in common areas are a minimum of 850mm and there will always be 300mm nib on the leading edge of a door.

Movement within buildings

This key subsection relates to the internal circulation within each building, considering specific needs of disabled people.

The buildings are accessed via horizontal corridors. Vertical circulation is via lifts in the cores, and ambulant disabled stairs.

Provision of lifts:

All lifts, in all buildings, are designed to comply with Approved Document Part M and BS 8300:2009, including size, internal materials, door opening width, and operating apparatus.

Stairs:

Stairs comply with Approved Document Part M and BS 8300:2009 in terms of widths, treads, risers, hand rails, nosings, top and bottom surfaces, landings and finishes.

They have also been designed for ambulant disabled, including the fire escape stairs.

Corridor and lobby design:

All corridors within the buildings comply according with their specific uses and with Approved Document Part M in terms of size, lighting, materials, signings, doors and colours etc.

There are no changes in level to any corridors and width is consistent. Vision panels in corridor doors will be designed to allow people both seated or standing to be seen.

Pull handles will only be fitted on the pull side of doors and fingerplates will be fitted on the push side. This assists all users, but especially people with learning difficulties and people with visual impairments. Handles will not extend down to floor level since this type of handle can become caught in the footplates or wheels of a wheelchair.

There is adequate space between lobby doors for a wheelchair user to clear one door before opening the next.

6.7 Means of escape

Design for independent means of escape

All features and materials comply with Approved Document Part B (2013). In addition, a management plan will be prepared for the evacuation of the buildings together with the preparation of a Personal Egress Emergency Plan.

With residential buildings, it is encouraged that, in the case of fire, inhabitants stay in their apartments. Each apartment has a 60 minute fire rated compartment surrounding it, to ensure that residents are protected from the source of the fire.

Facilities for physical evacuation

The escape routes, horizontal and vertical, meet the minimum widths to comply with ambulant disabled requirements. Escape stairs meet ambulant disabled goings and risings. Disabled refuge provision is made, where required. At upper residential levels no refuge has been allowed for, as the fire strategy is for people to remain in their apartments while the fire brigade deal with the fire.

Together with the Fire Alarm System, and the Personal Egress Emergency Plan, the buildings are designed to provide, according with their different uses, safe evacuation routes in the case of emergencies.

Please refer to the Executive Fire Strategy Summary, which has been prepared by Hoare Lea.

6.8 Signs and way finding

External signage

The signage strategy for the development will follow good practice guidelines, such as the “Sign Design Guide”. All signage will be contrasting and designed for those with learning difficulties or visual impairments.

Internal signage

All the buildings according to their uses are designed to enable clear signposting and a messaging system complying with the Sign Design Society Guidance.

All internal signs to communal areas will be clear, with contrasting symbols, and with braille translations to help the visually impaired. All signage will be located in obvious locations and will be well lit.

The use of differing tactile materials

A palette of tactile handrails/support rails showing directions of travel to the nearest fire exit have been considered through the design of each building.

The layout of the buildings

The clear layout of the building, generally arranged with a sequence of entrance/ lobby/lift/stair core/corridors, allows a simple circulation throughout and between the floors. A readable structure and shape provides an easy indication to distinguish different uses within the site.

6.9 Secure by Design

The scheme has been designed to encourage passive surveillance from surrounding residential buildings to overlook entrances and pedestrian routes within the site.

Through discussions with the local Design Out Crime Officer the scheme has evolved to allow for the following:

- Limit number of units accessed from cores
- Central concierge position to provide surveillance to the new areas of public realm
- Residents courtyards to have fob access gates
- Bins to have secondary locking door
- Bikes to have one opening door
- Lighting design will be sensitive to wayfinding and antisocial behaviour and switched off to discourage rough sleeping.
- Allow for retrofitting of CCTV to lampposts

All design will be carried out with the Secured By Design New Homes 2010 design guide in mind.

Discussions also covered the south-western tip of the site which was highlighted as an area which may be susceptible to anti-social behaviour. This area of the site benefits from passive surveillance from apartments in block C and can only be accessed by the public via public realm adjacent to the concierge office. Additional external lighting has been included in this area to provide an added level of security.

6.10 Accessible & adaptable dwellings

The location of the wheelchair user dwellings have not yet been defined. However the oversized units on the scheme would typically be allocated as wheelchair user dwellings.

90% of the units across the site will be M4(2) wheelchair accessible and adaptable dwellings the remaining 10% meet M4(3) criteria for wheelchair user dwellings.

The units highlighted in pink on the adjacent typical plan show the over-sized units and potential wheelchair adaptable and accessible dwellings.

6.11 Accessible and Adaptable Dwellings- Part M4(2) compliance

The following section demonstrates compliance with the criteria set out by M4(2). Listed below are the criteria for compliance with Part M4(2) which is followed by supporting annotated drawings.

M4 (2) Section 2A: Approach to the Dwelling

6.11.1 Approach Routes

General

The approach route to all dwellings is level with some ground floor units benefitting from an additional private entrance via a series of external steps. Communal parts of the approach route (except communal stairs) have a minimum clear width of 1200mm. All parts of the external approach routes will have a suitable ground surface.

External and internal ramps forming part of an approach route
All ramps comply with diagram 2.1, have a top and bottom landing of the minimum width required and have a clear width of at least 1200mm.

6.10.1 Car parking and drop-off

Parking space

Parking spaces are located along the access road to the back (western edge) of the site. Each parking space has a clear access zone of 1200mm to one side.

Drop-off point

The drop off point is close to the principle communal entrance in building D and is level with a suitable ground surface.

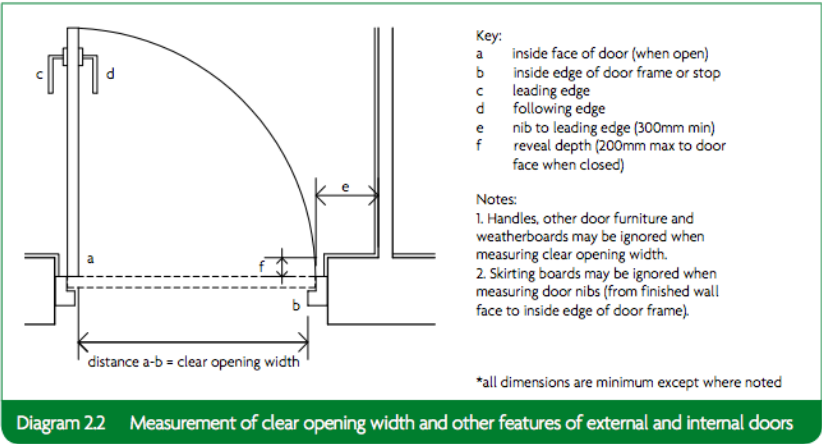
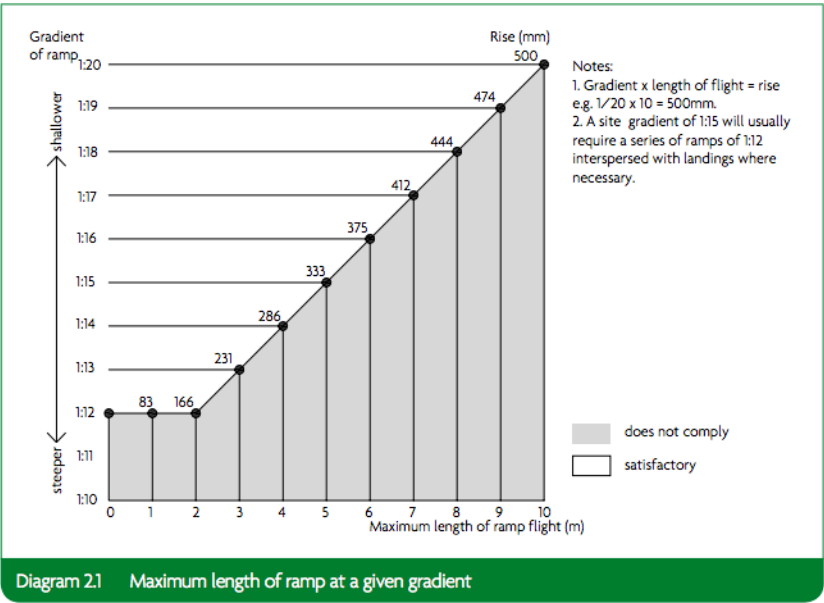
6.10.2 Communal Entrance

Principal Communal Entrances

The principle communal entrance has a level landing 1500mm x 1500mm directly outside and clear of any door swing. This will be covered to a minimum of 1200mm width and 900mm depth. Lighting will use fully diffused luminaires that are activated automatically by a dusk to dawn timer or a motion detector. The entrance door (including double doors) has a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2. Door entry controls will be mounted 900-1000mm above finished ground level, and at least 300mm away from any projecting corner.

Other communal doors

All other communal doors have a minimum clear opening width of 850mm, and a 300mm nib will be provided to the leading edge of the door, in accordance with diagram 2.2. Door entry controls will be mounted 900-1000mm above finished ground level, and at least 300mm away from any projecting corner.



6.10.3 Communal Lifts and Stairs

Communal lifts

2no. 13 person lifts (of which 1no. is a fire fighting lift) with a car size of 1600mm wide and 1400mm deep inside are provided to buildings B, C, D and E, and 2no. lifts are provided to building A. Each lift has a clear landing of 1,500mm x 1,500mm directly in front of the lift door at every floor level, a door clear opening width of at least 800mm and meet BS EN 81-70:2003. Landing and car controls will be 900-1200mm above the car floor and a minimum of 400mm from the inside of the front wall.

Communal stairs

Each building is served by 1 communal stair core which meets the requirements of Approved Document Part K for a general access stair. Additional escape stairs are provided from the podium amenity levels, which will also meet the requirements of Approved Document Part K.

6.10.4 Private entrances

Principal private entrance and alternative entrance

The principle private entrance to each apartment will have a level landing 1200mm x 1200mm directly outside. This will be covered to a minimum of 900mm width and 600mm depth. Lighting will use fully diffused luminaires that are activated automatically by a dusk to dawn timer or a motion detector. The entrance door (including double doors) has a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2.

Other external doors

All other doors connected to the dwelling will have a minimum clear opening width of 850mm, and a 300mm nib is provided to the leading edge of the door, in accordance with diagram 2.2.

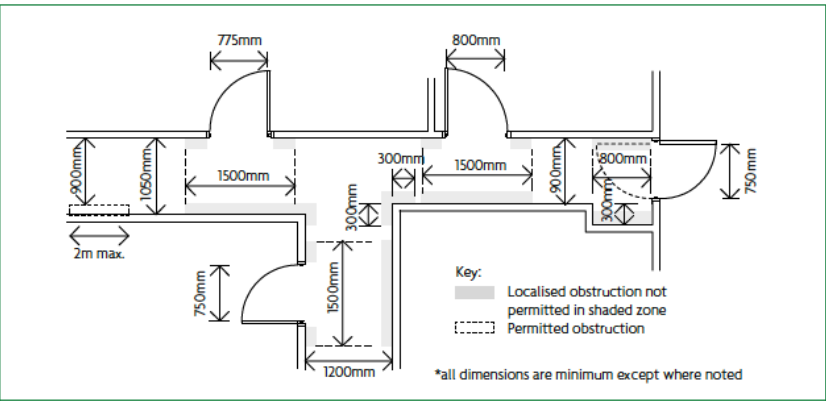


Diagram 23 Minimum door and hall widths and restrictions on localised obstructions

6.11.2 Circulation areas and Doorways

Door and hall widths

The minimum clear width of every hall or landing is 900mm. Localised obstructions will not occur opposite or close to a doorway and the corridor will not be reduced below 750mm width at any point. The clear opening widths will conform to those set by Approved Document M and a 300mm nib will be provided to the leading edge of every door within the entrance storey.

Private stairs and changes of level within the dwelling

Access to all rooms and facilities within the entrance storey will be step-free, with no level changes. The stair from the entrance storey to the storey above will have a minimum clear width of 850mm when measured above the pitch line of the treads. All stairs meet the provisions of Part K for private stairs.

6.11.3 Habitable rooms

Living, kitchen and eating areas

Within the entrance storey of all units there is a living area. A minimum of 1200mm clear space is provided in front and between all kitchen units and appliances.

Bedrooms

Every bedroom has a clear access route, minimum of 750mm wide from the doorway to the window, and at least one double bedroom will provide a clear access zone a minimum of 750mm wide to both sides and the foot of the bed. Other double bedrooms have a clear access zone a minimum of 750mm wide to one side and the foot of the bed.

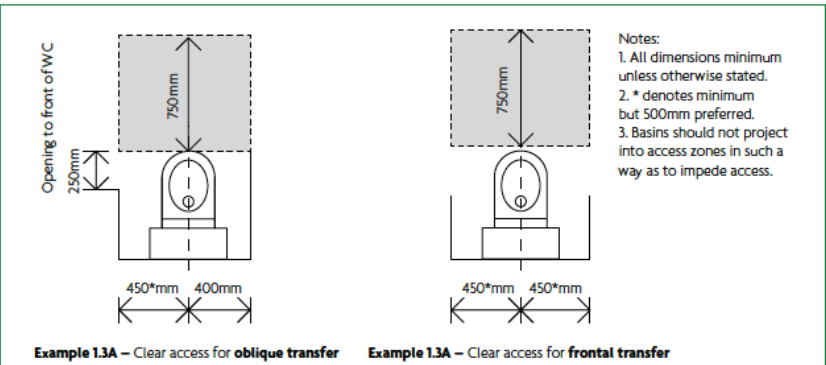


Diagram 13 WC access zones

6.11.4 Sanitary facilities

General provisions

All walls, ducts and boxing to the WC/Cloakroom, bathroom and shower rooms will be strong enough to support adaptations that could impose a load of up to 1.5N/m2.

WC facilities on the entrance storey

Every dwelling will have a room that provides a WC and basin on the entrance storey. In two storey dwellings, with one or two bedrooms, the WC meets the provisions of diagram 1.3 and the basin does not impede access to the WC.

In two storey dwellings with three bedrooms, the room with the WC and basin provides a potential level access shower.

The door to the WC will open outwards.

Bathrooms

Every dwelling has a bathroom that contains a WC, a basin and a bath, that is located on the same floor as the double bedroom described as the principle bedroom above.

6.11.5 Services and controls

Consumer units will be mounted so that the switches are between 1350mm and 1450mm above floor level. Switches, sockets and controls will have their centre line between 450mm and 1200mm above floor level and a minimum of 300mm from an inside corner.

The handle to at least one window in the principle living area is located between 450mm and 1200mm, or a remote opening device will be fitted. Handles to other windows will be located between 450mm and 1400mm above floor level, or a remote opening device will be fitted.

Boiler controller will be mounted in an accessible location between 900mm - 1200mm above finished floor level.

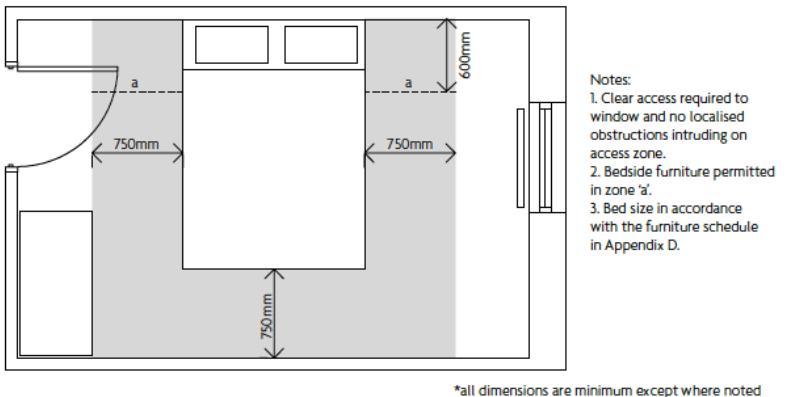
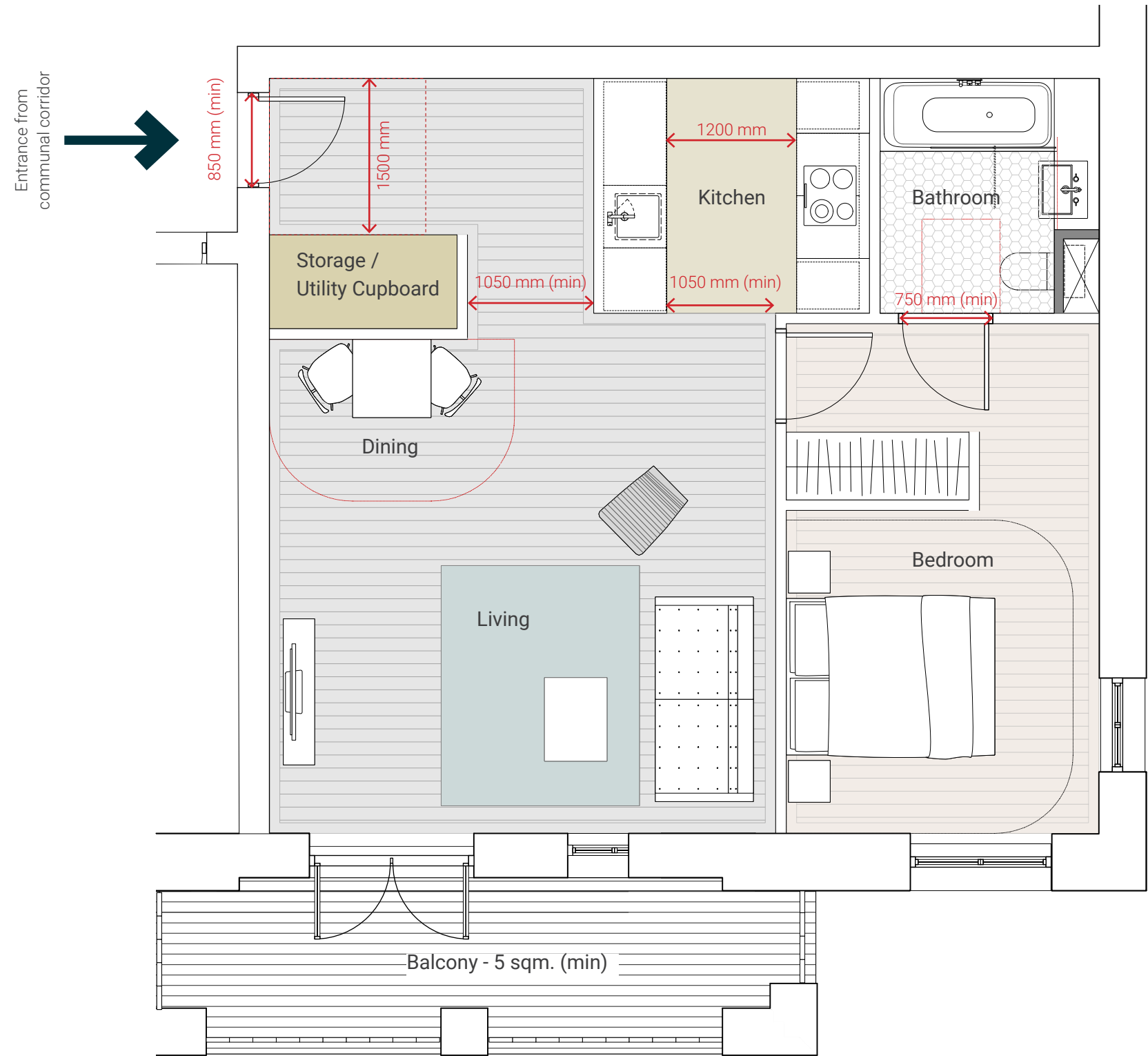
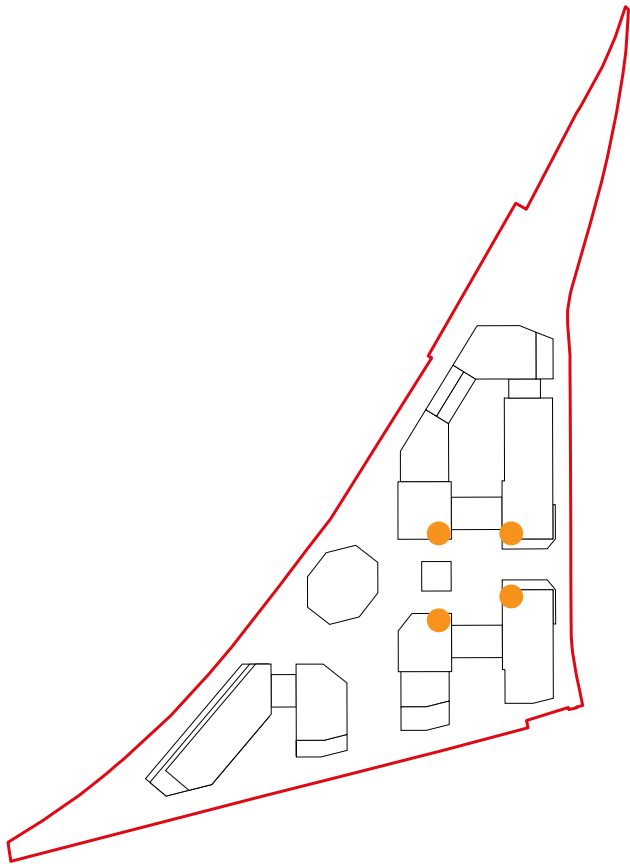


Diagram 24 Clear access zones to principal bedroom

6.12 Typical M4(2) flat layouts

6.12.1 Typical M4(2) 1 bedroom flat

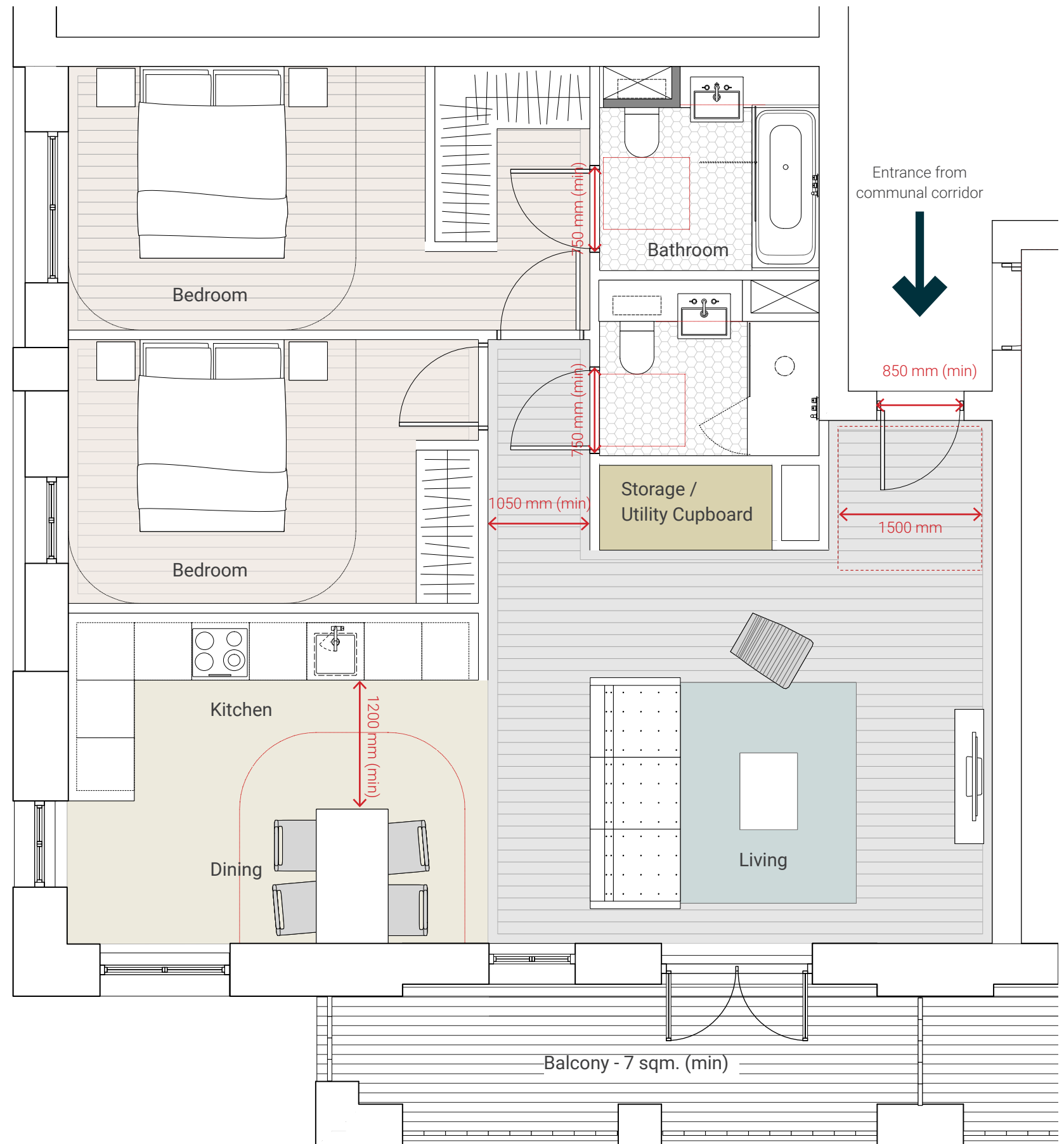
- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 3.6m



1 bedroom M4(2) apartment. Scale 1:50 @ A3

6.12.2 Typical M4(2) 2 bedroom flat

- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 4.2m



2 bedroom M4(2) apartment. Scale 1:50 @ A3